



Installation and operating instructions  
**EC402S WAWA**

**MENUKEY2**



**IMPORTANT INFORMATION  
READ BEFORE USE  
PLEASE SAVE THESE INSTRUCTIONS**

Users are cautioned that maintenance and repairs should be performed by a Merrychef authorized service agent using genuine Merrychef replacement parts. Merrychef will have no obligation with respect to any product that has been improperly installed, adjusted, operated or not maintained in accordance with national and local codes or installation instructions provided with the product, or any product that has its serial number defaced, obliterated or removed, or which has been modified or repaired using unauthorized parts or by unauthorized service agents. For a list of authorized service agents, please refer to the inside back page of this booklet. The information contained herein (including design and parts specifications) may be superseded and is subject to change without notice.

# PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- a) Do not attempt to operate this oven with the door open since open-door operation can result in harmful exposure to microwave energy. It is important not to defeat or tamper with the safety interlocks.
- b) Do not place any object between the oven front face and the door or allow soil or cleaner residue to accumulate on sealing surfaces.
- c) Do not operate the oven if it is damaged. It is particularly important that the oven door closes properly and that there is no damage to the (1) door ( bent ) (2) hinges and latches ( broken or loosened ) (3) door seals and sealing surfaces.
- d) The oven should not be adjusted or repaired by anyone except properly qualified service personnel

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## PLEASE READ THE FOLLOWING SAFETY INSTRUCTIONS CAREFULLY

# IMPORTANT SAFETY INSTRUCTIONS

When using electrical appliances basic safety precautions should be followed, including the following:  
**WARNING** To reduce the risk of burns, electric shock, fire, injury to persons, or exposure to excessive microwave energy:

1. Read all instructions before using the appliance.
2. Read and follow the specific "PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY" FOUND ON PAGE 2.
3. This appliance must be grounded. Connect only to a properly grounded outlet.  
See "GROUNDING INSTRUCTIONS" found on page 4.
4. Install or locate this appliance only in accordance with the provided installation instructions
5. Some products such as whole eggs and sealed containers — for example, closed jars — may explode and should not be heated in this oven.
6. Use this appliance only for its intended use as described in the manual. Do not use corrosive chemicals or vapors in this appliance. This type of oven is specifically designed to heat, cook or dry food. It is not designed for industrial or laboratory use.
7. This appliance should not be used by children.
8. Do not operate this appliance if it has a damaged cord or plug, if it is not working properly, or if it has been damaged or dropped.
9. This appliance should be serviced only by qualified service personnel. Contact the nearest authorized service facility for examination, repair or adjustment.
- 10 Do not cover or block any openings on the appliance including air vents/filters and steam outlet.
- 11 Do not store this appliance outdoors. Do not use this product near water — for example, near a kitchen sink, in a wet basement, or near a swimming pool, and the like.
12. Do not immerse the cord or plug in water.
13. Keep the cord away from heated surfaces.
14. Do not let cord hang over edge of table or counter.
15. Either:
  - i) When cleaning surfaces of door and oven that come together on closing the door, use only mild non-abrasive soaps, or detergents applied with a sponge or soft cloth.
  - ii) When separate cleaning instructions are provided, see door surface cleaning instructions.
16. To reduce risk of fire in the cavity:
  - i) Do not overcook food. Carefully attend appliance if paper, plastic or other combustible materials are placed inside the oven to facilitate cooking.
  - ii) Remove wire twist-ties from paper or plastic bags before placing bag in oven

- iii) If materials inside the oven should ignite, keep oven door closed, turn oven off, and disconnect the power cord, or shut off power at the fuse or circuit breaker panel.
- iv) Do not use the cavity for storage purposes. Do not leave paper products, cooking utensils or food in the cavity when not in use.
17. DO NOT operate using microwave only or combination function without food or liquid inside the oven as this may result in overheating and may cause damage.
18. NEVER remove the exterior of the oven.
19. NEVER remove any fixed internal parts of the oven.
20. NEVER tamper with the control panel, door, seals, or any other part oven.
21. DO NOT obstruct air vents/filters or steam outlet.
22. NEVER hang dish towels or cloths on any part of the oven.
23. If the door seals are damaged, the oven must be repaired by an approved Service Agent.
24. If the power cable is damaged in any way it MUST be replaced by an approved Service Agent.
25. When handling hot liquids, foods, and containers, care should be taken to avoid scalds and burns.
26. When heating liquids using microwave only or combination function, the contents should be stirred prior to heating to avoid eruptive boiling.
27. Feeding bottles and baby food jars should be opened when heating, the contents stirred or shaken and the temperature checked prior to consumption to avoid burns.
28. Never use the oven to heat alcohol, e.g. brandy, rum etc. Also, food containing alcohol can more easily catch fire if overheated.
29. Never attempt to deep fry in the oven.

## SAVE THESE INSTRUCTIONS

# ELECTRICAL INSTALLATION

For all cord connected appliances:

## GROUNDING INSTRUCTIONS

This appliance must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This appliance is equipped with a cord having a grounding wire with a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded.

**WARNING** — Improper use of the grounding can result in the risk of electric shock.

Consult a qualified electrician or Serviceman if the grounding instructions are not completely understood or if doubt exists as to whether the appliance is properly grounded.

Do not use an extension cord. If the power supply cord is too short, have a qualified electrician or serviceman install an outlet near the appliance.

For a permanently connected appliance:

## GROUNDING INSTRUCTIONS

This appliance must be connected to a grounded, metallic, permanent wiring system, or an equipment grounding conductor should be run with the circuit conductors and connected to the equipment grounding terminal or lead on the appliance.

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## POWER SUPPLY: CIRCUIT BREAKERS

If the oven is connected to a ground fault detection device, it is required that the GFP or GFEP will allow a minimum of 30 millamps ground current without interrupting the circuit.

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## In case of Radio or Television Interference

This equipment generates and uses radio frequency energy and if not installed and operated correctly, in strict accordance with the manufacturer's instructions, may cause harmful interference to authorized radio communication services.

It has been type tested and found to comply with the limits for Part 18.307 conducted emissions for non-consumer equipment and Part 18.305 radiated emissions, which are designed to provide reasonable protection against such interference. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- 1) Re-orientate the receiving antenna.
- 2) Relocate the microwave with respect to the receiver.
- 3) Plug the microwave into a different outlet so that the receiver and microwave are on different branch circuits.

If necessary the user should consult the dealer or an experienced radio/television technician for additional suggestions.

Note: Modifications should only be carried out by the manufacturer or authorized representative to ensure continuing conformance.

# PRECAUTIONS TO BE OBSERVED

1. Read this manual before using your oven.
2. As with all electrical appliances, it is wise to have the electrical connections inspected periodically.
3. The oven interior and door seals should be cleaned frequently, following the instructions described in the CLEANING section.
4. There is no need to switch off your oven after each function but remember to switch off at the end of the day or period of operation.
5. Microwave energy should not be used to dry linen or warm plates.
6. As with any cooking appliance, care should be taken to avoid combustion of the items within the oven.

**If smoke is observed:**

- Switch off
- Isolate from the electrical supply
- Keep the door closed to stifle any flames

7. Ensure food is placed in the centre of the oven cavity for best results.
8. When using the microwave only function, cover the food to prevent splashing the walls of the cavity.
9. Food in combustible plastic or paper containers should only be used in microwave only function and checked frequently to avoid the possibility of ignition.
10. Items should be **unwrapped** when using convection and combination functions.
11. Eggs and whole hard-boiled eggs should **not** be heated using the microwave or combination function as they may explode.
12. Food with a skin, e.g. potatoes, apples, sausages, etc. should be pierced before heating.
13. Food should not be heated in a completely sealed container as the build-up of steam may cause it to explode.
14. Excess fat should be removed during 'roasting' and before lifting heavy containers from the oven.
15. In the event of glass breaking or shattering within the oven, ensure that food is totally free of glass particles. If in doubt, dispose of any food that was in the oven at the time of the breakage.

## INSTALLATION

Remove packing material and protective film from the oven.

Included inside your oven: Rack  
Upper and lower impinger plates

Check for obvious signs of transit damage.  
If necessary, inform the freight company IMMEDIATELY.

### LOCATION AND POSITIONING

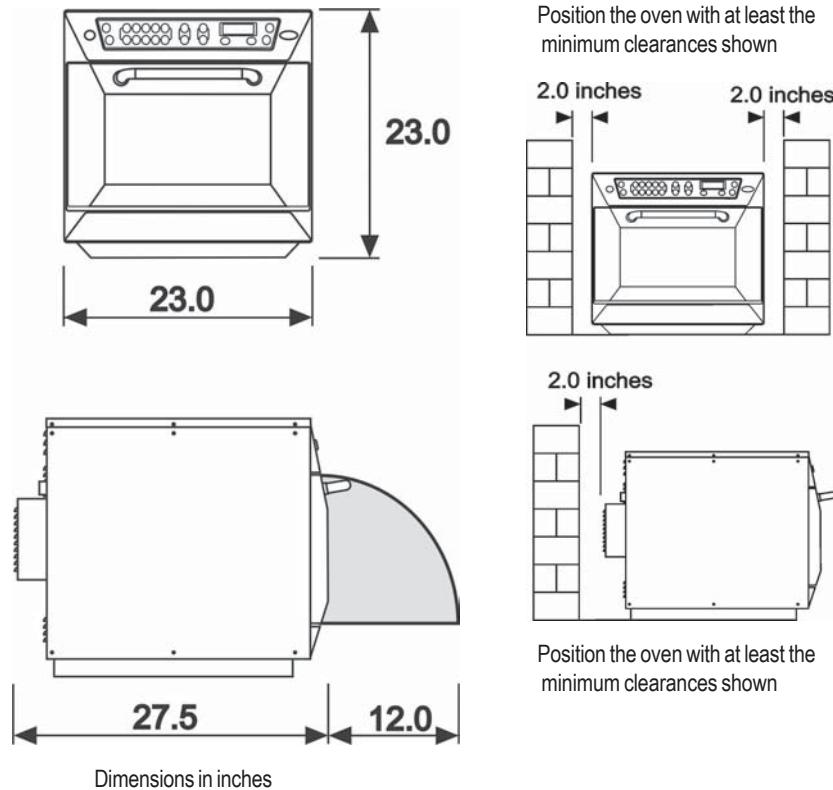
Choose a site away from major heat sources.

**DO NOT** position so that hot air is drawn in from fryers, grills, griddles, etc.

A heat barrier to the height of the oven must be installed if sited next to a burner, stove or range.

#### Note:

The air intake is located under each side of the oven, even with the clearance specified below it is important that airflow is as cool as possible and not pre-heated by other appliances such as fryers, grills and griddles as this will deteriorate the life and performance of the oven.



#### WARNING:

Check that the AIR FILTERS are in place prior to operation ( see MAIN FEATURES )

Place the oven on a flat surface that is LEVEL, STRONG and STABLE.

Allow a minimum clearance of 2 inches (50mm) to the rear, top and each side to allow air to circulate freely.

The air intake is located under each side of the oven, even with the clearance specified above, it is important that airflow is as cool as possible and not pre-heated by other appliances such as fryers, grills or griddles.

Allow a minimum of 2 inches (50mm) clearance above the oven for hot air to escape.

Allow sufficient clearance, 12 inches (305mm) in front of the oven for the door to open fully.

Do not affix labels/stickers to oven other than those applied or approved by the manufacturer.

## SUITABLE COOKING UTENSILS

Manufacturer's instructions should be checked to determine the suitability of individual containers or utensils using each of the cooking functions.

Do NOT place metal trays or containers on the BOTTOM of the oven as arcing may occur.

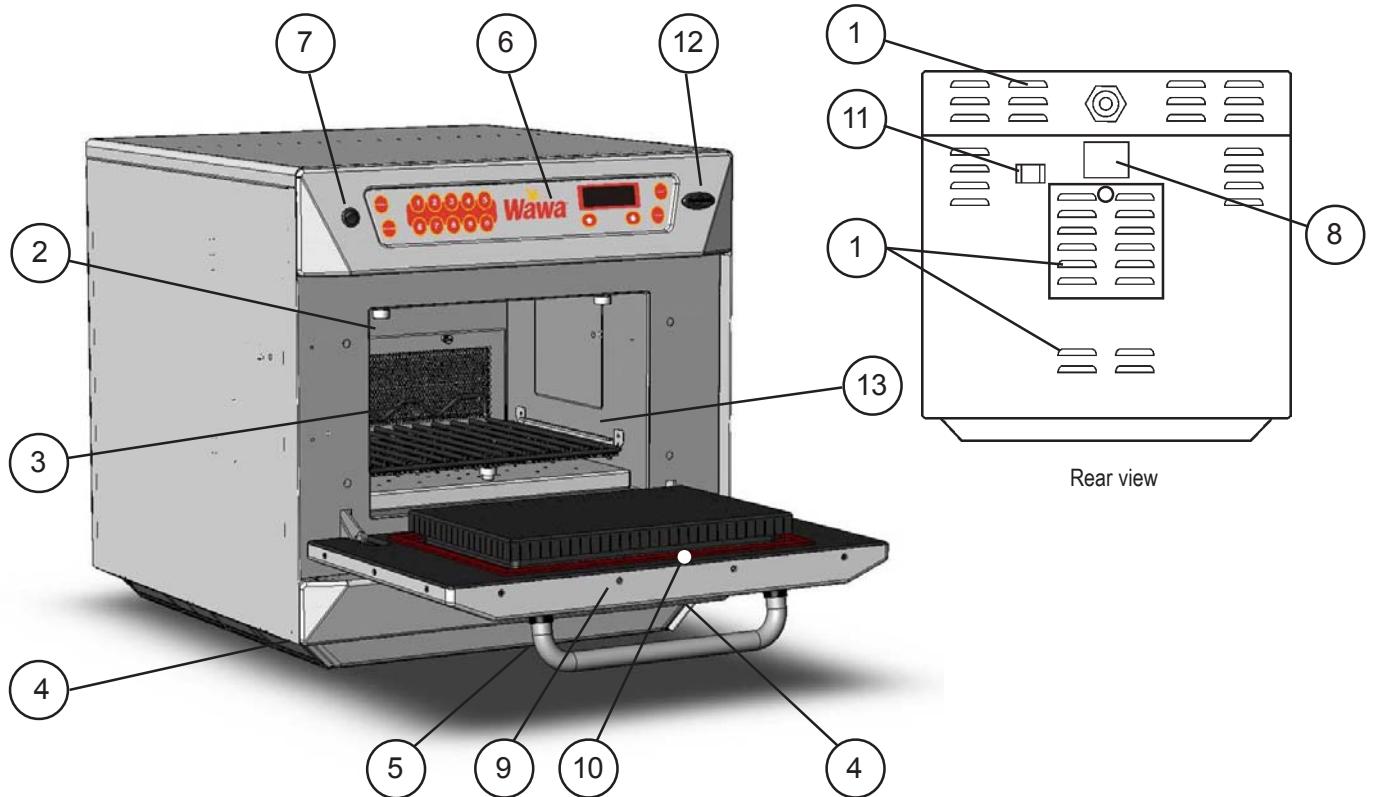
The following chart provides general guidelines:

		combination	convection only
Heat resistant containers  Toughened glass Vitreous ceramics Earthenware (porcelain, crockery, china etc.)	✓ ✓ ✓	✓ ✓ ✓	Do not use items with metallic decoration.
Metallic & Foil Trays  Metallic trays DO NOT USE ANY OTHER METAL OR FOIL CONTAINERS	✓	✓	Metallic trays may only be used when placed on the vitreous rack in the oven cavity ( See IMPORTANT Note )
Plastic containers  Rigid, boilable, plastic containers	✓	✓	Dual-ovenable plastic containers (up to certain temperatures) are now available. Check manufacturer's instructions before use
Disposables  DO NOT USE Combustibles (paper, card, etc) Microwave-suitable cling film	✗ ✗	✗ ✗	DO NOT USE disposable packaging or metal foil containers
Other utensils  Tie tags Cutlery Temperature probes	✗ ✗ ✗	✗ ✗ ✗	No kitchen utensil should be left in food while it is cooking

### IMPORTANT

The oven will accomodate  $\frac{1}{4}$  size bun/sheet pans. Metal sheet pans may be used when placed on the special vitreous enamel rack ONLY.

## MAIN FEATURES



### 1 AIR OUTLETS

These vents on the rear panels enable air which has been used to cool internal components to escape. It will not allow microwave energy to escape into the environment. They must be kept free from obstruction.

### 2 OVEN CAVITY

The cavity is constructed from stainless steel and vitreous enamelled panels. It must be kept clean (see CLEANING).

### 3 CONVECTION FAN, GREASE FILTER & CATALYTIC CONVERTOR

The convection fan, which is located behind the catalytic convertor pulls air in through the filter which removes the majority of the smoke from the air flow. The air is then heated and returned to the cavity through the impinger plates to produce an even heat pattern in the oven. This layout minimises areas where grease build up can occur.

Great care should be taken when cleaning this area of the oven - please note the cleaning requirements pages 12-14.

The metal grease filter grill covering the fan must be kept clean and free of debris (See CLEANING)

### 4 AIR INLET FILTERS (LEFT & RIGHT)

Situated at the left and right hand side of the base at the front. These are part of the ventilation system and must be kept free of obstruction and cleaned on a daily basis.

### 5 DOOR HANDLE

This is a rigid bar which is pulled downwards and towards you to open.

### 6 CONTROL PANEL

See page 10.

### 7 ON/OFF SWITCH

When switched ON, the control panel will illuminate. The fan and ventilation system will also operate.

### 8 RATING PLATE

Found on the rear panel, this states the serial number, model type & electrical specifications.

### 9 DOOR

This is a precision-made energy barrier with three microwave safety interlocks. It must be kept clean (see CLEANING section). The door should NOT be used to support heavy dishes.

### 10 DOOR SEALS

These ensure a tight seal around the door. They should be kept clean and checked regularly for signs of damage. At the first sign of wear they should be replaced by a Merrychef approved Service Agent.

### 11 STEAM VENT (on rear of oven)

This enables steam to escape and prevents build up of condensation. It will not allow microwave energy to escape.

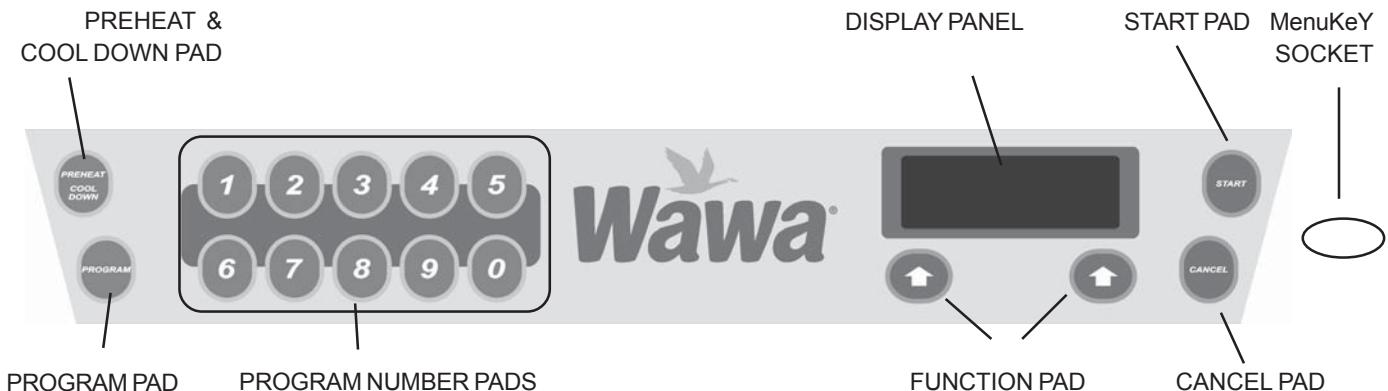
### 12 MenuKey 2

Changes the programs on the oven ( See MenuKey section for downloading programs on a MenuKey).

### 13 Rack

Should be removed daily for cleaning (see CLEANING section).

## CONTROL PANEL



### PROGRAM NUMBER PADS

These pads are used for setting the cooking time in 1 second steps to a maximum of 10 minutes. They are also used for storing and recalling programs from 0-499.

#### MenuKey

The MenuKey System automatically changes all the cooking programs with an electronic key and allows program names to be identified.

#### PREHEAT & COOL DOWN

The preheat pad switches the oven into and out of Pre-Heat Mode. To enter cool down mode press and hold the Pad for 5 seconds.

#### PROGRAM

Activates program mode for storing and running pre-set programs from memory. Programs can also be downloaded from a MenuKey  
(see MenuKey: CHANGING OVEN MENU PROGRAMS)

### CANCEL PAD

Cancels all timed cooking cycles, pre-programmed operations and stops the microwave energy. It does not alter the oven temperature. If the oven is hot, food will continue to cook and should be removed from the oven immediately. This pad will also cancel any incorrect operations. It will not erase programs.

#### MAIN DISPLAY PANEL

Shows the principal functions of the oven. When cooking, the time remaining counts down. Also displays error messages and oven temperature. When storing and recalling a program the display indicates the program number and details.

### Start up sequence and oven specification

When the oven is switched on the WAWA logo is displayed followed by information about the oven:

Model No.  
Software  
MenuKey serial No.

MODEL NUMBER	:402S
SOFTWARE	:
MENUKEY2 CODE	:000
MENUKEY CS	:0000



The oven then displays the cold standby screen.

## RUNNING A PROGRAM

### Using number pad keys to run a program

Programs 0 to 499 can be recalled using the number pad keys.  
The following procedure should be used to activate these programs.  
( Programs are installed from a MenuKey see page 11)

#### 1 Switch the oven ON

The display briefly shows the model no., software issue and MenuKey No. before showing the OVEN COLD standby screen.



OVEN COLD  
Press Preheat



#### 2 To heat the oven up to its pre-set cooking temperature press the PREHEAT/COOLDOWN Pad.

The oven will take approximately 20 minutes to reach the preset temperature, the display will show the current oven cavity temperature during warm up. The display will then show READY AT TEMP°F when cooking temperature is reached.



*example:  
preset temperature 525°F*

READY AT 525°F  
RUN PROGRAM - - -



#### 3 Press the program number pad(s) you wish to activate (0-499).

The program number and the program name will appear on the display.

*example: Program 8*



READY AT 525°F  
RUN PROGRAM - - -  
PROGRAM NAME



#### 4 Taking all the necessary precautions to ensure you do not burn yourself, place the food into the hot oven cavity and close the door.

Press **START** Pad to begin cooking  
Always keep the period that the door is open to a minimum.



Hot surface hazard



PROGRAM 008  
**02.35**  
PROGRAM NAME



The program will now operate with the total remaining time displayed counting down on the display (all stage time added together).  
*example: 2minutes 35seconds*



\ / \ / \ /  
COOKING  
COMPLETED  
\ / \ / \ /



When the time reaches "00:00" the display shows cooking completed and an audible signal will be given.

Taking all the necessary precautions to ensure you do not burn yourself remove the food from the oven and close the door.

Programs can be halted and cancelled at any time by pressing the **CANCEL** key.



Warning: the oven will remain at the pre-set cooking temperature and food inside the oven will

## MenuKey : CHANGING OVEN MENU PROGRAMS

The MenuKey System automatically changes all the cooking programs on the oven from a pre-programmed electronic key.

### To change the menus on the oven:

- 1 Ensure the power switch is **OFF**.
- 2 Lift the **MenuKey** cover in the top front panel of the oven and put the key in the slot.



Do not remove the key during download sequence as this could corrupt the data on the key



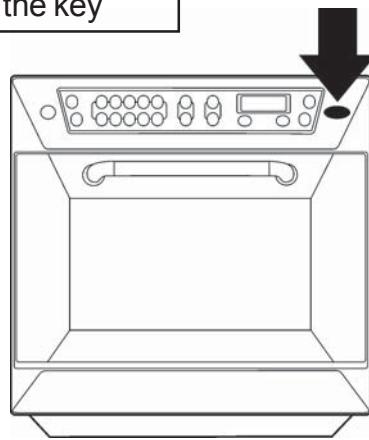
- 3 With the key still in place switch the power switch **ON**.

The oven will now go through the program download sequence by displaying the following:

The MenuKey Code. e.g. 555

The MenuKey CS e.g. 0A06  
MenuKey CS (checksum)  
confirms the menus on this key are valid for the MenuKey Code.

MENUKEY2 DETECTED  
MK CODE 555  
MK CS 0A06  
Download Upload



- 4 Confirm that the MenuKey Code and MenuKey CS are correct and press **Download** Function key to load the programs into the Oven memory.

Note: Downloading from a MenuKey will clear all the existing programs

Download



MENUKEY2 DETECTED  
MK CODE 555  
MK CS 0A06  
Download Upload



Check that the key is correct then press the **Continue** function key to proceed with the Download

Continue



WARNING  
ALL OVEN PROGRAMS  
WILL BE OVERWRITTEN

Exit

Continue



MENUKEY2  
DOWNLOADING



MENUKEY2  
VERIFYING



Exit



MENUKEY2 DOWNLOAD  
COMPLETE  
CHECKSUM:0A06

Exit



On completion of the download press the **Exit** function key to return the oven to standby mode. The display briefly will show the following:

Oven Model No. Software & MenuKey serial No.

MODEL NUMBER	:402S
SOFTWARE	:
MENUKEY2 CODE	:000
MENUKEY CS	:0000

The standby screen will then display

OVEN COLD	PRESS PREHEAT
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Remove the MenuKey and keep in a safe place.



## CLEANING: 1

For the oven to operate at peak efficiency, the cavity, door and air filters and grease filter must be kept clean.

A daily cleaning routine will ensure that you comply with the required hygiene standards and will help to maintain and prolong the efficiency of your oven.

Follow the SAFETY INSTRUCTIONS at the beginning of this manual.



**WARNING: DO NOT use caustic cleaners on any part of the oven or oven cavity as it will cause permanent damage to the Catalytic Convertors**

- **ALWAYS switch off at the electrical supply before cleaning**
- **Complete COOL DOWN procedure and allow the oven and accessories to cool before commencing cleaning**
- **As required wipe out spillages with disposable paper wipes**
- **NEVER use steel wool, knives or harsh abrasives on any part of the oven**

As with all electrical appliances, it is wise to have the electrical connections inspected periodically.



Faults arising from neglect or misuse including use without clean filters in place are not covered by the guarantee. Service visits as a result of such faults will be chargeable.



**DO NOT use the oven without clean air filters and cavity grease filter in place**

## START UP: OVEN COATING PROCEDURE ( clean oven )

1.  
Spray Merrychef Oven Protector onto the sponge



2.  
Spread Oven Protector lightly onto all internal surfaces of the oven



3.  
Spread Oven Protector lightly onto the internal surface of the oven door



4.  
Switch on the oven and press PREHEAT. When the oven has reached operating temperature it will take about 30mins to cure the Oven Protector.

Note: oven protector turns light brown when cured

## CLEANING: 2

### COOL DOWN PROCEDURE: ( 30 minutes approx. )

Equipment :– Cooling tray filled with Ice.



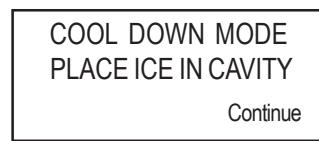
1.

With the Oven hot, press and hold the **PREHEAT/COOL DOWN** pad on the control panel for 5 seconds to disable heating and start the cool down cycle.



2.

Taking all necessary precautions place a suitable heaped container of ice, into the cavity.



3.

Close the door and Press **Continue** function key.

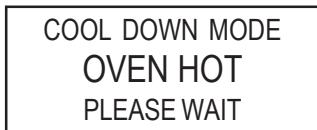


Continue

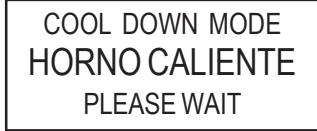


4.

The oven now cools the oven cavity. This process will take approximately 30 minutes.

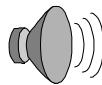


**alternating warning  
( spanish )**



5.

Wait until the message below is displayed.



6.

Switch the oven **OFF**.

The oven is now ready for cleaning.  
See: CLEANING INSTRUCTIONS.



## CLEANING: 3

- **ALWAYS** switch off at the electrical supply and allow oven to cool before cleaning  
See COOL DOWN PROCEDURE
- **CAUTION:** Allow the oven and accessories to cool before commencing cleaning



**WARNING: DO NOT use caustic cleaners on any part of the oven or oven cavity as it will cause permanent damage to the Catalytic Convertors**

Equipment: Merrychef oven cleaner, Merrychef Oven Protector, heat proof gloves, protective rubber gloves, non-abrasive nylon scrub pad, cleaning towel and cloths, eye protection and dust mask (optional)

### COLD OVEN: CLEANING INSTRUCTIONS ( following cool down )

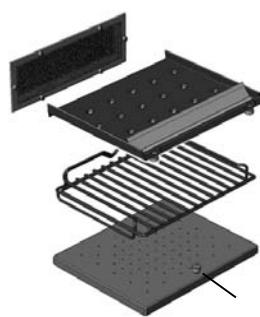
**CAUTION: Wear protective rubber gloves when cleaning the oven**

**Oven Parts and filters & Oven Cavity** Wash all parts in warm soapy water. Wash off using a clean cloth and plenty of clean, warm water. Dry using a fresh, clean cloth.

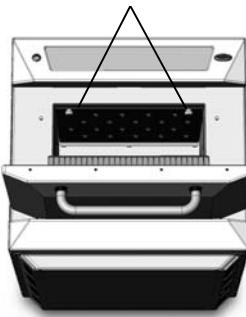
Remove air filters both sides



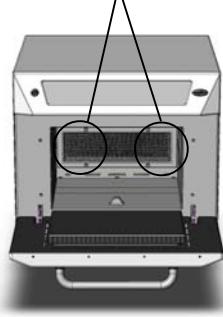
Remove the rack and lift out bottom impinger plate



Remove top impinger plate  
Undo fasteners



Remove grease filter undo the 4 thumb screws



If the door seals are damaged, the oven must be repaired by an approved Servicer.

**DO NOT spray directly into the fan opening at the rear of the oven**

1.  
Wear protective rubber gloves and protective glasses carefully spray Merrychef Oven Cleaner onto the internal surfaces of the oven except door seals.  
DO NOT spray directly into the fan opening at the rear of the oven



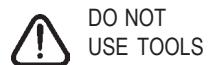
2.  
For difficult areas leave to soak for 10 minutes. Leave the oven door open during cleaning. Use a non-abrasive nylon scrub pad/sponge to clean all internal surfaces and the inside of the door.



3.  
Wash off using a clean cloth and plenty of clean warm water to rinse top, sides and back of oven. Dry using a fresh clean cloth or paper towel. Wipe the outside of the oven with a damp cloth.



4.  
Replace clean oven parts  
  
Grease Filter\*  
Top plate\*  
Bottom plate\*  
Air filters x2



DO NOT USE TOOLS

**! DO NOT use the oven without clean air filters and cavity grease filter in place**



\*When replacing impinger plates and the cavity grease filter use firm finger pressure to tighten fasteners  
DO NOT USE TOOLS

## TROUBLESHOOTING

Oven display message	Possible causes	Solutions
No display	Oven not switched on no electrical supply to oven	Switch oven on check power supply call service engineer
Oven not ready	Oven is warming up	Wait until oven reaches ready state
Cavity sensor	Cavity sensor not working correctly	Call service engineer
Mag OH	Magnetron overheating blocked air filter failed magnetron	clean air filters at base of oven call service engineer
Ambient temperature	Oven overheating	clean air filters at base of oven call service engineer
Invalid time	Cooking time is more than 10 minutes	Enter a stage time 10.00 minutes or less
Invalid temperature	PREHEAT temperature and program temperature do not match	Check PREHEAT temperature in configuration set-up
MenuKey error	MenuKey is invalid	Try downloading again Request new MenuKey
Display reads 'READY' program will not start	Door not closed properly	Close door

### Cooking Issues

Core temperatures not achieved	Wrong program used settings wrong	Identify correct program check settings
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## TECHNICAL SPECIFICATIONS

Merrychef EC402S	Height ( inches )	Width ( inches )	Depth ( inches )	Wt. ( lb.s )	Microwave Power output ( watts )	Convection Power output ( watts )
External Dimensions	23.0	23.0	27.5	187	1500	3250

Power supply ( See Product Rating Label )

Model No.	Service Required	
402S208_	2P & G	208V ac 60Hz 30A
402S240_		240V ac 60Hz 30A

Approved Service Agent